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ABSTRACT

Phosphopeptides containing the Ser(P) cluster sequence motif Ser(P)-Ser(P)-Ser(P)-Glu-Glu- can stabilise their own weight in amorphous calcium phosphate (ACP) $[\text{Ca}_3(\text{PO}_4)_{1.87}(\text{HPO}_4)_{0.2} \times \text{H}_2\text{O}]$ and amorphous calcium fluoride phosphate (ACFP) $[\text{Ca}_8(\text{PO}_4)_5 \text{F} \times \text{H}_2\text{O}]$. The amorphous phases stabilized by the phosphopeptides are an excellent delivery vehicle to co-localise Ca, F, and phosphate at the tooth surface in a slow-release amorphous form producing superior anticaries efficacy. These amorphous phases stabilised by the phosphopeptides also have utility as dietary supplements to increase calcium bioavailability and to help prevent diseases associated with calcium deficiencies.